



Spectroscopic Record Sheet



Details on acquisitions

Object	Pi 1
Coordinates (J2000)	01:26:40.01 -74:10:15.60
Type	Possible PN

Observation date	16.111/12/2023
Weather conditions	/
Observer	2SPOT
Location	Deep Sky Chile (CL)

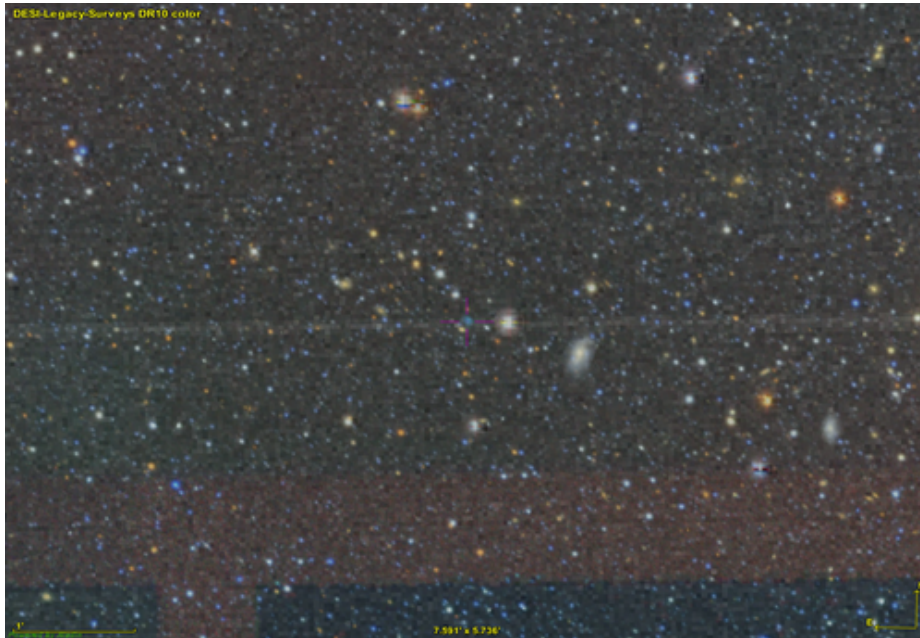
Mount	10 Micron GM3000 HPS
Telescope	Newton 300mm F/4
Spectroscope	Alpy 600 (23um slit)
Resolution (bin 1x1)	~1nm at 656 nm
Principal camera	Atik 414 EX
Dispersion (bin 1x1)	~0,3 nm/pixel at 656 nm
Cam temperature	-10°C
Binning	2x2
Guiding camera	Atik 314L+
Data acquisition Soft	Prism v11.2.3.21
Data processing soft	ISIS V6.1.1

Exposure on object	7 x 1200 s
Master Dark	Corrected
Master Flat	Corrected
Master Offset	Corrected
Neon-Argon calibration	Corrected
Reference star calib.	HD15008_A3V
Exposure on ref star	14 x 0.8 s
Ref star Sp. date	16.171/12/2023

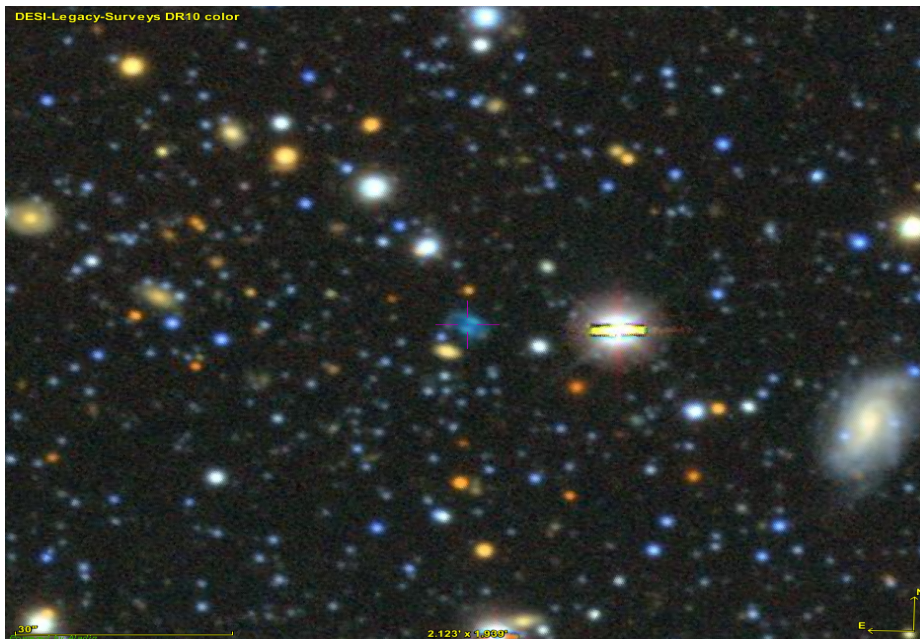


Slit position and images

Slit position



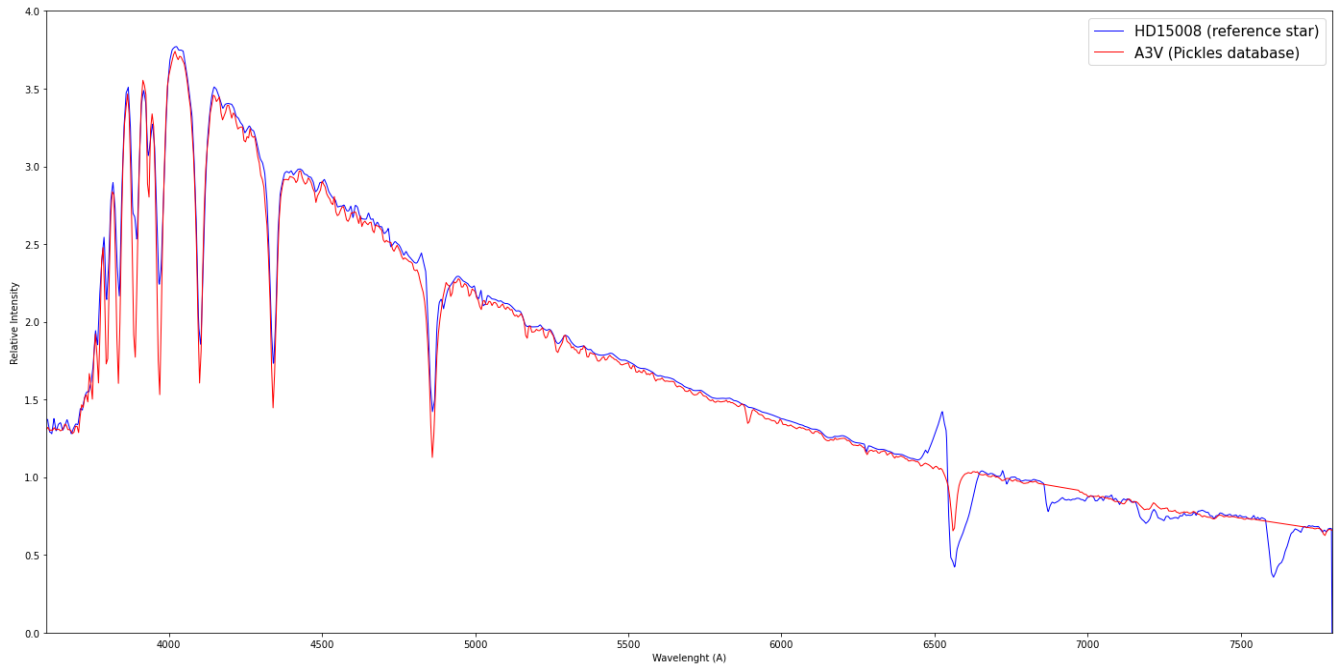
Object picture(s)



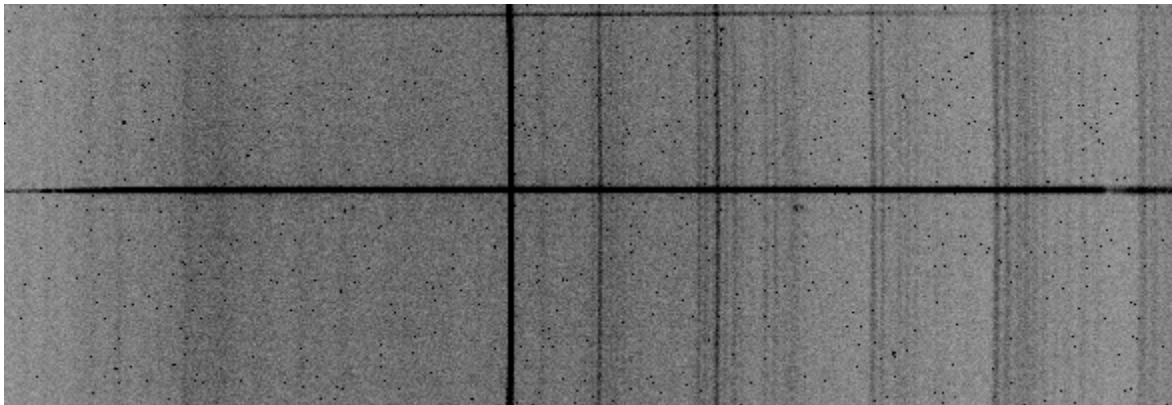


Instrumental Response and 2D Spectra

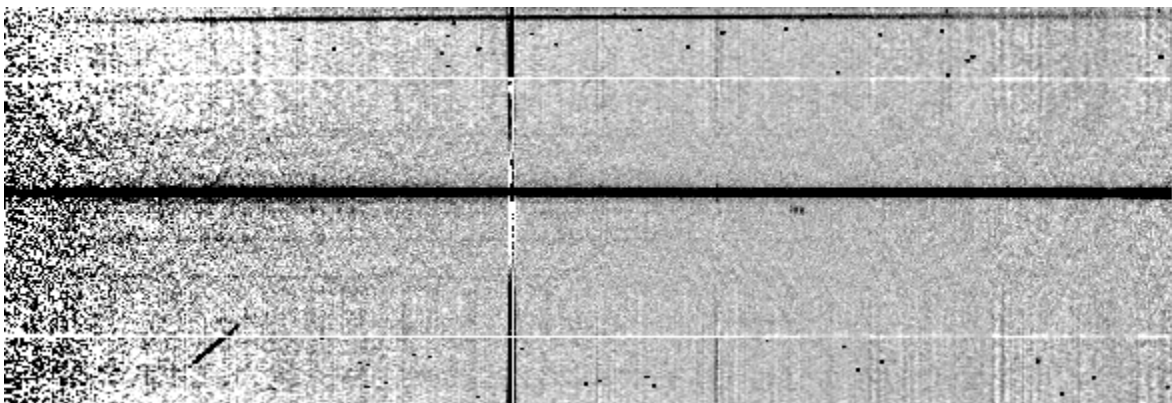
Instrumental response (red = theoretical ref star spectrum ; blue = acquired ref star spectrum with instrumental response correction applied)

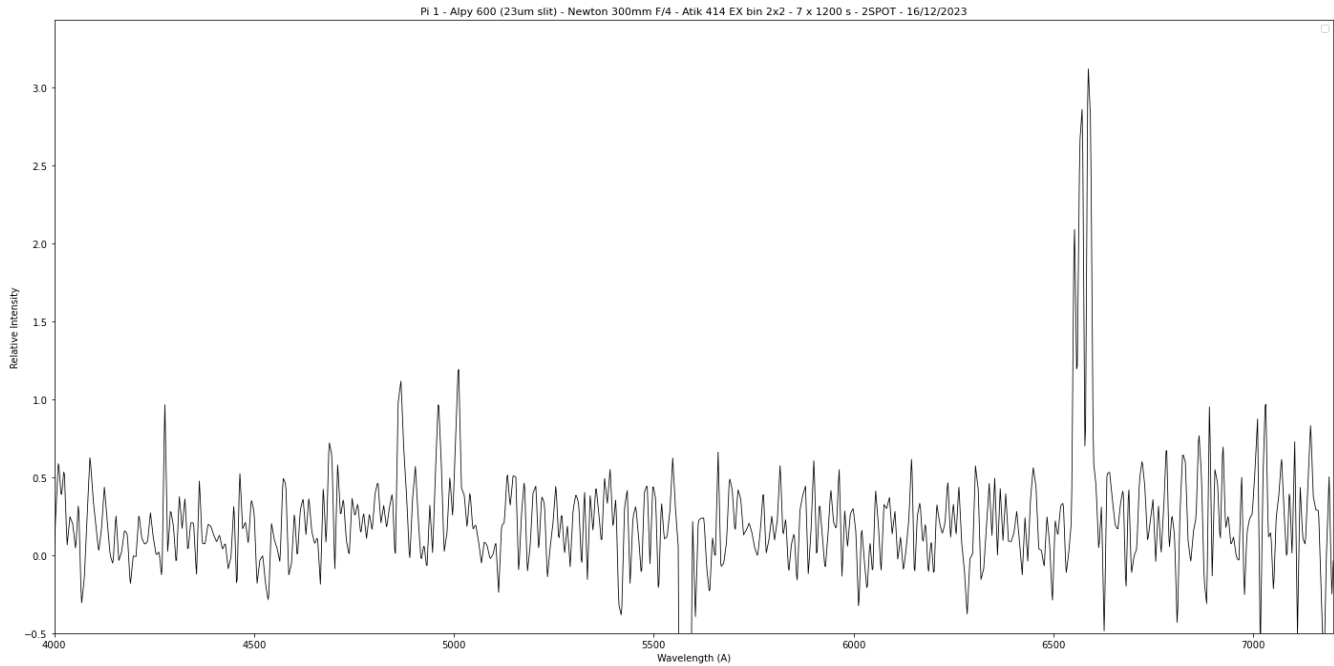


2D Raw spectrum



2D Processed spectrum





Comments

Hbeta, [OIII], Halpha and [NII] lines detected.

Strong [NII] line.

The [OIII] line ratio could not be maintained after processing.

Pi 1 is certainly a true PN